SVKM's
D. J. Sanghvi College of Engineering

Program: B.Tech in Electronics & Telecommunication Engg **Academic Year: 2022** **Duration: 3 hours**
Date: 05.01.2023
Time: 10:30 am to 01:30 pm
Subject: Microprocessor & Microcontroller (Semester V) **Marks: 75**

Instructions: Candidates should read carefully the instructions printed on the question paper and on the cover page of the Answer Book, which is provided for their use.
(1) This question paper contains one pages.
(2) All Questions are Compulsory.
(3) Answer to each new question is to be started on a fresh page.
(4) Figures in the brackets on the right indicate full marks.
(5) Assume suitable data wherever required, but justify it.
(6) Draw the neat-labelled diagrams, wherever necessary.

Question No.		Max. Marks
Q1 (a)	i. Explain Hardware interrupts in 8085 Microprocessor. **OR** ii. Explain addressing modes of 8085 Microprocessor.	[05] [05]
Q1 (b)	What is register? Explain internal registers of 8085 Microprocessor and their function in detail.	[10]
Q2 (a)	Explain internal memory organisation and its structure in 8051 Microcontroller. **OR** Explain PORT 1 structure and its operation to read the data and to write the data.	[10] [10]
Q2 (b)	Draw and Explain interrupt structure of 8051 Microcontroller.	[10]
Q3 (a)	Explain addressing modes of 8051 Microcontroller with examples.	[10]
Q3 (b)	Write an assembly language program to find largest number from data block of 10-bytes. Also draw flow chart of the program.	[10]
Q4 (a)	i. Explain interfacing of DC motor to 8051 Microcontroller and write an assembly language program to rotate the motor in forward, reverse direction. **OR** ii. What is an interfacing? Interface eight LED's with 8051 Microcontroller through Port 1 and write an assembly language program to blink alternate LED's on it.	[10] [10]
Q5 (a)	i. Draw block diagram of ARM7 processor and Explain Features of ARM processor. **OR** ii. Explain internal registers of ARM7 processor.	[10] [10]